APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,947	09/25/2003	Deepak S. Elandassery	Y0242-00296	2054

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EXAMINER
RAYYAN, SUSAN F

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/670,947	ELANDASSERY ET AL.
	Examiner	Art Unit
	Susan F. Rayyan	2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *09292003*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-14 are pending.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted on September 25, 2003

was filed before First Action. The submission is in compliance with the provisions of 37

CFR 1.97. Accordingly, the information disclosure statement is being considered by the

examiner.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claim 1-14 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

MPEP 2106 IV.B.2.(b)

A claim that requires one or more acts to be performed defines a process.

However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at

296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must

either: (A) result in a physical transformation outside the computer for which a practical

application is either disclosed in the specification or would have been known to a skilled

artisan, or (B) be limited to <u>a practical application</u>.

Claims 1,12,14 in view of the above cited MPEP sections, are not statutory

because they merely recite a number of computing steps without producing any tangible

result and/or being limited to a practical application. The claim language recites

"providing a set of schema instructions defining a database structure according to a

preexisting schema", "providing a corresponding set of schema instructions defining the

database according to a modified schema", "parsing the schema instructions for both

the preexisting schema and the modified schema", "comparing the two logical syntax

trees to generate a set of differences", and "generating from the differences a set of

database modification commands". The claim does not provide a concrete result as it

does not store or display the results to the user.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5,12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable

over US Patent Number 6,826,568 issued to Toshiyuki Karino ("Karino") and US

Patent Number 6, 826,568 issued to Phillip A. Bernstein et al ("Bernstein").

As per claim 1,12,14 Karin teaches:

a method for modifying a database structure, the database being defined at least partly

by commands that define a database schema containing tables with fields that have

attributes (see abstract);

providing a set of schema instructions defining a database structure according to a

preexisting schema (column 2, lines 60-61, old schema information);

providing a corresponding set of schema instructions defining the database according to

a modified schema (column 2, lines 60-62);

 parsing the schema instructions for both the preexisting schema and the modified

schema (column 2, lines 60-64) ..., to generate a set of differences between said

structure types and attributes of the subset (column 3, lines 7-17);

generating from the differences a set of database modification commands for altering a

database according to the preexisting schema, to a database according to the modified

schema, with respect to the structure types and attributes of the subset (column 3, lines

33-40, 50-55).

Karino does not explicitly teach so as to produce two logical syntax trees wherein

the database structure is defined by at least a subset of structure types and attributes of

which at least one differs between the preexisting schema and the modified schema

however Bernstein does teach this limitation (column 17, lines 18-30). It would have

been obvious to one of ordinary skill in the art at the time of the invention combine the

cited references to provide a complete general purpose schema matching solution

which is fast enough to use in real-time (column 4, lines 53-column 5, lines 2).

As per claim 2, same as claim arguments above and Bernstein teaches:

wherein the database structure is defined by an access and query language that defines tables of variables having labels and field characteristics (column 6, lines 20-25).

As per claim 3, same as claim arguments above and Bernstein teaches:

wherein the database structure is defined by ANSI structured query language (SQL) (column 6, lines 20-25).

As per claims 4,13 same as claim arguments above and Karino teaches:

selected from the group consisting of: association of variable values with a key variable, association of variable values in at least one table, table name and labeling, variable name and labeling, aliases, table type, variable type, table dimensions; field length; variable numeric format; variable string format, identification of key variables, conditions for uniqueness, conditions for null-ability, and, default values (column 3, lines 7-18).

As per claim 5, same as claim arguments above and Karino teaches:

wherein the schema instructions defining the database structure according to the preexisting schema are derived from an operational database, and further comprising the step of modifying the operational database by applying the database modification commands thereto (column 3, lines 50-55).

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,826,568 issued to Toshiyuki Karino ("Karino") and US Patent Number 6, 826,568 issued to Phillip A. Bernstein et al ("Bernstein") in view of US Patent Application Publication 2003/0172368 issued to Alumbaugh et al ("Alumbaugh").

As per claim 6, same as claim arguments above and Karino and Bernstein do not

explicitly teach identifying at least one ambiguity in said comparing of the two logical

syntax trees to generate the set of differences between said structure types and

attributes of the subset and   presenting said ambiguity to a user for resolution.

Alumbaugh does teach identifying at least one ambiguity in said comparing of the two

logical syntax trees to generate the set of differences between said structure types and

attributes of the subset (paragraph 234, lines 35-43) and presenting said ambiguity to a

user for resolution (paragraph 234, lines 44-45 and Figure 4, #15),accepting an input

from the user for resolving the ambiguity(paragraph 264), and wherein said generating

of the database modification commands is at least partly based on said input from the

user (paragraph 265). It would have been obvious to one of ordinary skill in the art at

the time of the invention to combine the cited references to efficiently and dynamically

analyze changes to data source (abstract).

As per claim 7, same as claim arguments above and Alumbaugh teaches:

wherein the set of differences are stored in a log file and wherein presenting the

ambiguity comprises at least one of displaying and sending the log file to a user

(paragraph 238).

As per claim 8, same as claim arguments above and Alumbaugh teaches:

further comprising recording a log containing a representation of at least one of said

differences and said input from the user paragraph 238).

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,826,568 issued to Toshiyuki Karino ("Karino") and US Patent Number 6, 826,568 issued to Phillip A. Bernstein et al ("Bernstein") in view of US Patent Application Publication 2003/0172368 issued to Alumbaugh et al ("Alumbaugh") and further in view of US Patent Application Number 6,460,041) Steven D. Lloyd ("Lloyd").

As per claim 9, same as claim arguments above and Karino, Bernstein and Alumbaugh do not explicitly teach wherein the ambiguity comprises a choice between one of at least two alternative database structures that comply with the modified schema. Lloyd does teach this limitation at column 7, lines 54-56. It would have been obvious to one of ordinary skill in the art the time of the invention to combine the cited references to provide efficient means to manipulate schema.

As per claim 10, same as claim arguments above and Karino, Bernstein and Alumbaugh do not explicitly teach wherein the ambiguity comprises a choice between one of at least two alternative modifications to the preexisting schema that proceed toward the modified schema. Lloyd does teach this limitation at column 7, lines 52-64. It would have been obvious to one of ordinary skill in the art the time of the invention to combine the cited references to provide efficient means to manipulate schema.

As per claim 11, same as claim arguments above and Karino, Bernstein and
Alumbaugh do not explicitly teach wherein the ambiguity comprises a choice between
renaming at least one of a table and a variable in a table, versus deleting and replacing
at least one of said table and the variable in said table. Lloyd does teach this limitation
at column 7, lines 52 - column 8, line3. It would have been obvious to one of ordinary
skill in the art the time of the invention to combine the cited references to provide
efficient means to manipulate schema.

Contact Information

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Susan Rayyan whose telephone number is (571) 272-

1675. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Breene can be reached on (571) 272-4107. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-

9306.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Rayyan

April 17, 2006

SHAHID ALAM
PRIMARY EXAMINER